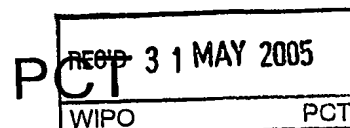


PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY



To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/IB2005/050957

International filing date (day/month/year)
21.03.2005

Priority date (day/month/year)
30.03.2004

International Patent Classification (IPC) or both national classification and IPC
G02B3/14, G02B26/02, G02B5/18, G02B26/08

Applicant
KONINKLIJKE PHILIPS ELECTRONICS N.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA: _____



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2005/050957

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Box No. II Priority

1. ☒ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43*bis*.1 and 64.1) is the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/B2005/050957

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	9-14,16-18,21-27
	No: Claims	1-8,15,19,20
Inventive step (IS)	Yes: Claims	12-14,21-27
	No: Claims	1-11,15-20
Industrial applicability (IA)	Yes: Claims	1-27
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V.

1 Reference is made to the following documents:

- D1 : WO 02/099527 A (KONINKLIJKE PHILIPS ELECTRONICS N.V; PRINS,
MENNO, W., J; CORNELISSEN,) 12 December 2002 (2002-12-12)
D2 : WO 03/069380 A (KONINKLIJKE PHILIPS ELECTRONICS N.V; FEENSTRA,
BOKKE, J; KUIPER, STEIN) 21 August 2003 (2003-08-21)
D3: US 2002/176148 A1 (ONUKI ICHIRO ET AL) 28 November 2002 (2002-11-28)
D4 : US 2002/118458 A1 (RYUTOV DMITRI D ET AL) 29 August 2002 (2002-08-
29)

2 INDEPENDENT CLAIM 1

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.
Document D1 discloses (the references in parentheses applying to this document):

A switchable optical unit (fig.3) capable of controlling a beam of radiation (14) passing through an optically active portion (10) of the unit, which unit comprises a chamber (13) and an electrically conductive liquid (4) contained in the chamber and having an index of refraction different from that of its surroundings (page 3 line 34), the chamber being provided with an electrode configuration (5,6,7) wherein application of a voltage, from a voltage control system to electrodes causes movement of the said liquid (page 4 lines 9-11), characterized in that the electrode configuration comprises at least one first electrode (5) fixed to the inner walls of the chamber at the position of the optically active portion (10), second electrode means (6) fixed to the inner walls of the chamber at positions outside the optically active portion (page 4 lines 22-24) and a third electrode (7) in contact with the conductive liquid (page 4 lines 2-4) and connected to a first output of a voltage source, a second output of which is connected in a first mode to said at least one first electrode and in a second mode to the second electrode means (page 4 lines 7-11).

Although D1 does not disclose explicitly that the third electrode is continuously connected to the voltage source, this seem however to be the most likely case.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/IB2005/050957

Accordingly, **claim 1** does **not** seem to be **novel** (Art.33(2) PCT) and certainly **not inventive** (Art.33(3) PCT).

3 DEPENDENT CLAIMS 2-11, 15-20

Dependent claims 2-11, 15-20 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT), see the documents and the respective passages cited in the International Search Report.

4 DEPENDENT CLAIM 12

The combination of the features of dependent claim 12 is neither known from, nor rendered obvious by, the available prior art. The reasons are as follows:

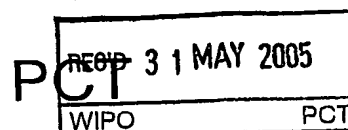
D1 does not disclose a chamber wall with a phase structure.

D4 does disclose a chamber wall with a phase structure, but the electrode placement and their activation differs from the features of present claim 12.

5 Claims 13,14,21-27 are dependent on claim 12 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2005/050957

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2005/050957

Box No. V Reasoned statement under Rule 43bis.1(a)(I) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	9-14,16-18,21-27
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Inventive step (IS)	Yes: Claims	12-14,21-27
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2. Citations and explanations

see separate sheet

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/IB2005/050957

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